UNITED STATES GOVERNMENT
MEMORANDUM

August 5, 2019

To: Public Information
From: Plan Coordinator, OLP, Plans Section
(GM235D)

Subject: Public Information copy of plan

Control #	-	S-07966
Type	-	Supplemental Development Operations Coordinations Document
Lease(s)	-	OCS-G12209 Block - 200 Green Canyon Area
Operator	-	Fieldwood Energy Offshore LLC
Description	-	Subsea Well TA009
Rig Type	-	Not Found

Attached is a copy of the subject plan.

It has been deemed submitted as of this date and is under review for approval.

Chiquita Hill
Plan Coordinator

Site Type/Name	Botm Lse/Area/Blk	Surface Location	Surf Lse/Area/Blk
WELL/TA009	G12209/GC/200	7491 FSL, 5758 FEL	G12209/GC/200

FIELDWOOD ENERGY

July 3, 2019

Bureau of Ocean Energy Management
Office of Leasing and Plans
1201 Elmwood Park Boulevard
New Orleans, LA 70123-2394

Attn: Michelle Picou
Chief, Plans Section

Subject: **Supplemental Development Operations Coordination Document**
Fieldwood Energy Offshore LLC
Green Canyon Block 200
Lease No. OCS-G12209

In accordance with 30 CFR 550.200 Subpart B and NTL 2008-G04, Fieldwood Energy Offshore LLC (Fieldwood) hereby submits for your review and approval a Supplemental Development Operations Coordination Document for the installation of one subsea jumper in Green Canyon Block 200, Lease No. OCS-G12209 and the commencement of production the associated Green Canyon Block 200 Well TA009 (ST01 BP00).

Enclosed you will find one Proprietary Copy and one Public Copy with a CD containing electronic copies of the plan.

If you should have any questions or concerns, please contact me, Ali Ferguson by phone at 713-969-1308 or by e-mail at ali.ferguson@fwellc.com.

Sincerely,

Ali Ferguson
Sr. Regulatory Specialist

SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

Green Canyon Block 200
Lease No. OCS-G12209

Substantive changes to the Supplemental Development Operations Coordination Document are noted in the table below.

Record of Change:

Date	Plan Section	Summary of Change

SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATION DOCUMENT

PUBLIC Information Copy

Green Canyon Block 200
Lease No. OCS-G12209

Submitted by: Fieldwood Energy Offshore LLC

FIELDWOOD ENERGY

Fieldwood Energy Offshore LLC

SUPPLEMENTAL DEVELOPMENT OPERATIONS COORDINATON DOCUMENT

Green Canyon Block 200

Lease No. OCS-G12209

SECTION A *Plan Contents*

SECTION B *General Information*

SECTION C *Geological, Geophysical Information*

SECTION D *H2S Information*

SECTION E *Mineral Resources Conservation Information*

SECTION F *Biological, Physical and Socioeconomic Information*

SECTION G *Wastes and Discharge Information*

SECTION H *Air Emissions Information*

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SECTION O *Onshore Support Facilities Information*

SECTION P *Coastal Zone Management Act (CZMA) Information*

SECTION Q *Environmental Impact Analysis*

SECTION R *Administrative Information*

SECTION A
PLAN CONTENTS

(a) Plan Information Form

This Supplemental Development Operations Coordination Document (SDOCD) is being submitted for the commencement of production from the future Green Canyon Block 200 Well No. TA009 (ST01 BP00), API No. 60-811-40716-02 and for the construction, maintenance, and operation of the associated 95-foot long, 6.625-inch subsea well jumper (assigned Segment No. 20194) to be installed from the TA009 (ST01 BP00) tree to PLET 1, all in Lease OCS-G12209, Green Canyon Block 200.

This field is being further developed to add production from the future TA009 (ST01 BP00) well to be spud in Green Canyon Block 200 on or around July 15, 2019. Note that the drilling of the TA009 (ST01 BP00) well was proposed under Revised Exploration Plan, Control No. R-6856, which was deemed submitted on July 3, 2019.

See attached OCS Plan Information Form, Form BOEM-137, included under this section showing the proposed activity schedule (**Attachment A-1**).

(b) Location

Dynamically positioned vessels will be used to install the proposed well jumper. No anchors will be used. Enclosed under this section is a well location plat (**Attachment A-2**) and a pipeline location plat (**Attachment A-3**).

(c) Safety and Pollution Prevention Features

Fieldwood will use a dynamically positioned vessel and will comply with all of the regulations of the ABS, IMO and USCG.

Pollution prevention measures include installation of curbs, gutters, drip pans, and drains on deck areas to collect all contaminants and debris. All discharges will be in accordance with applicable EPA NPDES permits.

Health, safety, and environment are the primary topics in pre-tour and pre-job safety meetings. The discussion around no harm to people or environment is a key mindset. All personnel are reminded daily to inspect work areas for safety issues as well as potential pollution issues.

(d) Storage Tanks and Production Vessels

See chart below for all facility tanks of 25 barrels or more.

Type of Storage Tank	Type of Vessel	Tank Capacity (bbls)	Number of Tanks	Total Capacity (bbls)	Fluid Gravity (API)
Fuel Oil (Marine Diesel)	T K . 5 d FO - OVERFL # 9 8 - 1 0 1	187.5094	16	7,782.41	0.8500
	T K . 1 8 P S F O # 88 - 98	1164.999			
	T K . 1 8 S B F O # 88 - 98	682.603			
	T K . 1 9 P S F O # 78 - 88	1151.9			
	T K . 1 9 S B F O # 78 - 88	1030.149			
	T K . 2 0 P S F O # 70 - 78	606.0892			
	T K . 2 0 S B F O # 70 - 78	606.0892			
	T K . 2 1 P S F O # 58 - 70	981.1078			
	T K . 2 1 S B F O # 58 - 70	981.1078			
	T K . 2 4 F O - S E T L # 106 - 111 P S	61.74492			
	T K . 2 5 F O - S E T L # 106 - 111 S B	61.74492			
	T K . 2 6 F O - D A Y - 2# 102 - 106 P S	82.0369			
	T K . 2 7 F O - D A Y - 1# 102 - 106 S B	82.0369			
	T K . 4 4 F O I N C # 1 1 8 - 120 S B	16.82779			
	T K . 4 9 F O . D A Y T K # 102 - 103	54.69329			
	T K . 6 2 F O E M E R G E N C Y G E N E R	31.76977			
Special Products*	T K . 3 9 P S M E T H . / S P E C # 30 - 33	1343.86	2	2,647.20	Fluid Specific
	T K . 3 9 S B M E T H . / S P E C # 30 - 33	1303.35			
Portable Deck Tank	500 bbl portable deck tanks	450	6	2,700	Fluid Specific

(e) Processing Fee

A Pay.gov receipt is being included in this plan (**Attachment A-4**) in the amount of $4,238.00 to cover the cost and processing fee for the proposed operations being conducted under this plan.

(f) Pollution Prevention Measures and (g) Additional Measures

Per NTL 2008-G04, pollution prevention measures and additional measures information is not required.

Attachments

1) Form BOEM-137 (*Attachment A-1*)
2) Well Location Plat (*Attachment A-2*)
3) Jumper Location Plat (*Attachment A-3*)
4) Pay.Gov Receipt (*Attachment A-4*)

OCS PLAN INFORMATION FORM

General Information

Type of OCS Plan:		Exploration Plan (EP)	Development Operations Coordination Document (DOCD) Supplemental DOCD: SDOCD
Company Name:	Fieldwood Energy Offshore LLC	BOEM Operator Number:	03035
Address:		Contact Person:	Ali Ferguson
2000 W Sam Houston Pkwy S, Suite 1200		Phone Number:	713-969-1308
Houston, Texas, 77042		E-Mail Address:	ali.ferguson@fwellc.com

If a service fee is required under 30 CFR 550.125(a), provide the	Amount paid	$4,238.00	Receipt No.	26IJ0GIO

Project and Worst Case Discharge (WCD) Information

Lease(s):	OCS-G12209	Area:	GC	Block(s):	200	Project Name (If Applicable):	Orlov		
Objective(s)	X Oil		Gas		Sulphur		Salt	Onshore Support Base(s):	Fieldwood Deepwater Shorebase - OSS Dock / Port Fourchon
Platform/Well Name:	GC 200 TA009	Total Volume of WCD:	54,689 BOPD					API Gravity:	24.9°
Distance to Closest Land (Miles):	88	Volume from uncontrolled blowout:	49,722 BOPD						

Have you previously provided information to verify the calculations and assumptions for your WCD?		Yes	X	No
If so, provide the Control Number of the EP or DOCD with which this information was provided				
Do you propose to use new or unusual technology to conduct your activities?		Yes	X	No
Do you propose to use a vessel with anchors to install or modify a structure?		Yes	X	No
Do you propose any facility that will serve as a host facility for deepwater subsea development?		Yes	X	No

Description of Proposed Activities and Tentative Schedule (Mark all that apply)

Proposed Activity	Start Date	End Date	No. of Days
Exploration drilling			
Development drilling			
Well completion			
Well test flaring (for more than 48 hours)			
Installation or modification of structure			
Installation of production facilities			
Installation of subsea wellheads and/or manifolds			
Installation of lease term pipelines	October 1, 2019	October 4, 2019	4 days
Commence production	January 1, 2020		
Other (Specify and attach description)			

Description of Drilling Rig

	Jackup		Drillship
	Gorilla Jackup		Platform rig
	Semisubmersible		Submersible
	DP Semisubmersible		Other (Attach Description)

Drilling Rig Name (If Known):

Description of Structure

	Caisson		Tension leg platform
	Fixed platform		Compliant tower
	Spar		Guyed tower
	Floating production system		Other (Attach Description)

Description of Lease Term Pipelines

From (Facility/Area/Block)	To (Facility/Area/Block)	Diameter (Inches)	Length (Feet)
Green Canyon TA009 Hub	Green Canyon PLET-1 Hub	6.625"	95-foot

OCS PLAN INFORMATION FORM (CONTINUED)
Include one copy of this page for each proposed well/structure

Proposed Well/Structure Location

Well or Structure Name/Number (If renaming well or structure, reference previous name): TA009 (ST00 BP01)					Previously reviewed under an approved EP or DOCD?		Yes	X	No Revised EP in-review
Is this an existing well or structure?		Yes X		No	If this is an existing well or structure, list the Complex ID or API No.	60-811-40716-01			
Do you plan to use a subsea BOP or a surface BOP on a floating facility to conduct your proposed activities?							Yes	X	No

WCD info	For wells, volume of uncontrolled blowout (Bbls/day): 49,722 BOPD	For structures, volume of all storage and pipelines (Bbls): 4,967	API Gravity of fluid 24.9°

	Surface Location	**Bottom-Hole Location (For Wells)**	**Completion (For multiple completions, enter separate lines)**
Lease No.	OCS OCS-G12209	OCS	OCS OCS
Area Name	Green Canyon		
Block No.	200		
Blockline Departures (in feet)	N/S Departure: F_S_ L 7,491.74' FSL	N/S Departure: F____ L	N/S Departure: F____ L N/S Departure: F____ L N/S Departure: F____ L
	E/W Departure: F_E_ L 5,758.67' FEL	E/W Departure: F____ L	E/W Departure: F____ L E/W Departure: F____ L E/W Departure: F____ L
Lambert X-Y coordinates	X: 2,370,242'	X:	X: X: X:
	Y: 10,081,732'	Y:	Y: Y: Y:
Latitude/ Longitude	Latitude 27° 45' 49.978" N	Latitude	Latitude Latitude Latitude
	Longitude 90° 44' 34.148" W	Longitude	Longitude Longitude Longitude
Water Depth (Feet): 2,532'		MD (Feet): / TVD (Feet):	MD (Feet): / TVD (Feet): MD (Feet): / TVD (Feet): MD (Feet): / TVD (Feet):
Anchor Radius (if applicable) in feet:		N/A	

Anchor Locations for Drilling Rig or Construction Barge (If anchor radius supplied above, not necessary)

Anchor Name or No.	Area	Block	X Coordinate	Y Coordinate	Length of Anchor Chain on Seafloor
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	
			X =	Y =	

GREEN CANYON

156

200

Coordinates

TA9ST1 PSL X=2370242'
Y=10081732'
LAT: 27°45'49.978"N
LON: 90°44'34.148"W
5758.67' FEL 7491.74' FSL
WD=2532'

GC0200

TA9ST1 PSL

OCS-G-12209

244

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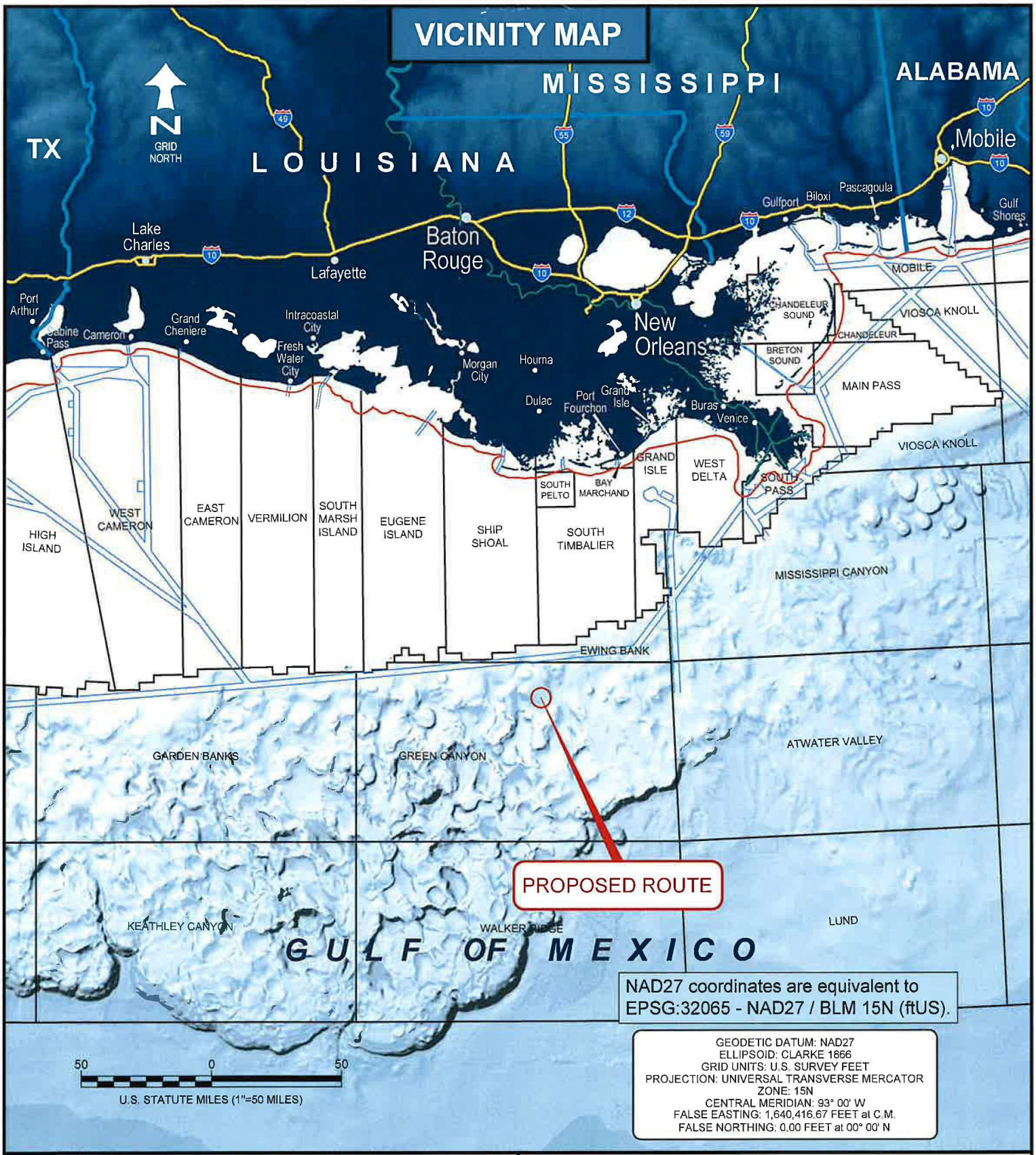
1"=2000'

N
W E
S

Projection: UTM Zone 15 North
Datum: NAD 27
Distance Units: US Survey Feet

GREEN CANYON BLOCK 200
OFFSHORE LOUISIANA
Supplemental EP
Proposed TA9ST1/P, Q, PT1, PT2 sands
SURFACE LOCATION

CI:	SCALE: 1"=2000'	INTERP:	DATE 5-2-2019



FIELDWOOD ENERGY

PROPOSED 6.625" WELL JUMPER

Orlov Well TA-9 Hub to Orlov PLET-1 Hub
Block 200, Green Canyon Area

PREPARED BY: OCEANEERING®

OCEANEERING INTERNATIONAL, INC.
730 E. KALISTE SALOOM RD.
LAFAYETTE, LA 70508
(337) 210-0000
LA Reg. No. 747

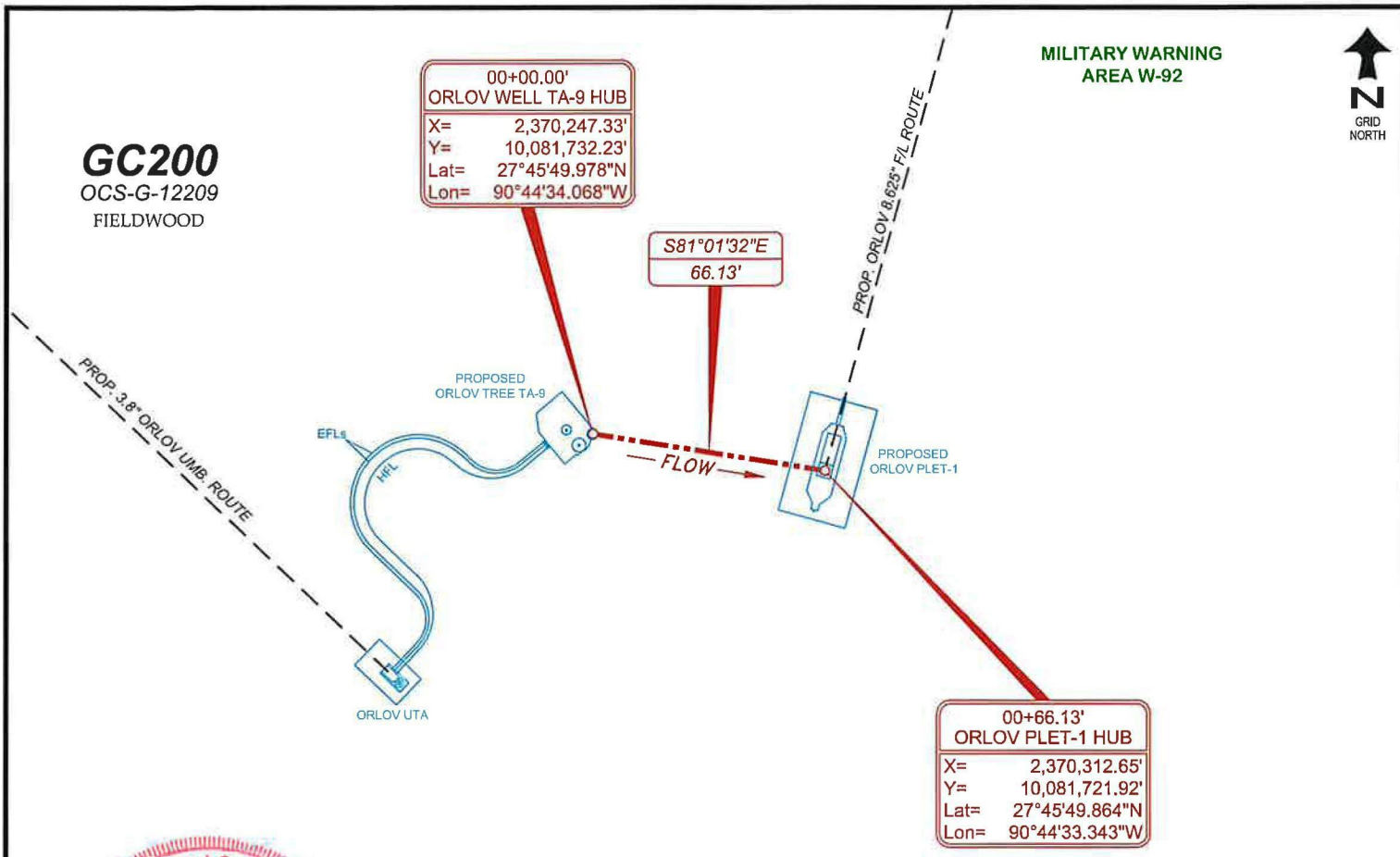
JOB: 198228	DRW: A. Mayet	DATE: March 29, 2019
CKD: A. McBride	APP: R. Coleman	SHEET 1 of 2
DOC: 198228-OII-DRW-PRM-002-01		REV. 0

SIZE: 8.5" X 11" DATE: 03/29/2019 TIME: 12:15 FILENAME: Z:\198228\ACAD\PERMIT\198228-OII-DRW-PRM-002.DWG

GC200
OCS-G-12209
FIELDWOOD

MILITARY WARNING AREA W-92

N GRID NORTH



STATE OF LOUISIANA
RALPH A. COLEMAN
REGISTERED
PROFESSIONAL
LAND SURVEYOR

THE PROPOSED ROUTE IS ACCURATELY REPRESENTED.

RALPH A. COLEMAN
PROFESSIONAL LAND SURVEYOR
LOUISIANA REGISTRATION No. 4691

FOR PERMITTING ONLY. STATIONING AND LENGTHS REFER TO HORIZONTAL DISTANCE(S) ONLY.

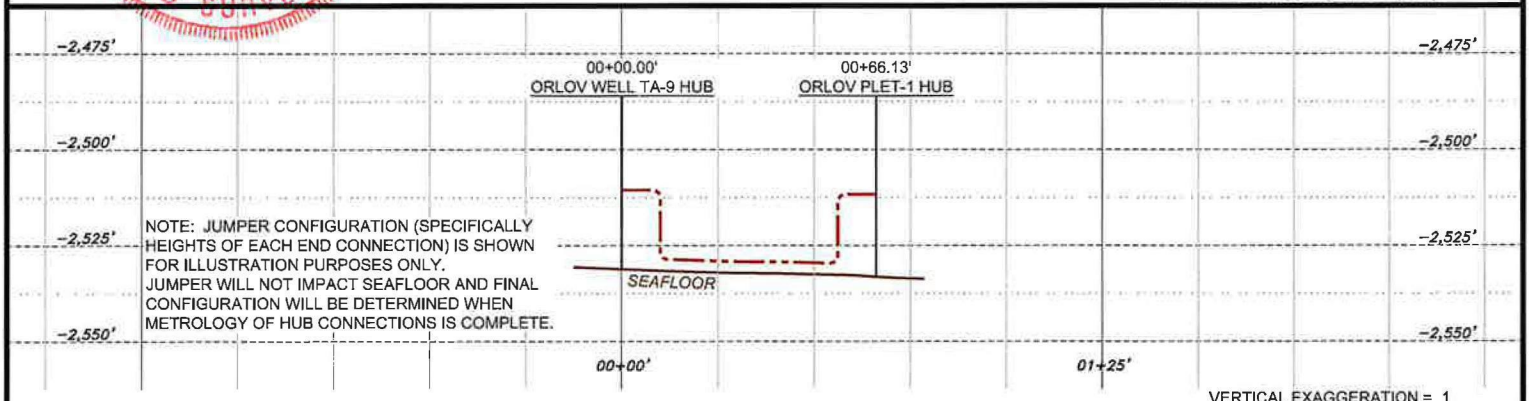
PLAN

0 50
SCALE IN US SURVEY FEET

NADCON version 2.1 utilized for WGS84-NAD27 conversions.

GEODETIC DATUM: NAD27
ELLIPSOID: CLARKE 1866
GRID UNITS: U.S. SURVEY FEET
PROJECTION: UNIVERSAL TRANSVERSE MERCATOR
ZONE: 15N
CENTRAL MERIDIAN: 93° 00' W
FALSE EASTING: 1,640,416.67 FEET at C.M.
FALSE NORTHING: 0.00 FEET at 00° 00' N

NAD27 coordinates are equivalent to EPSG:32065 - NAD27 / BLM 15N (ftUS).



NOTE: JUMPER CONFIGURATION (SPECIFICALLY HEIGHTS OF EACH END CONNECTION) IS SHOWN FOR ILLUSTRATION PURPOSES ONLY. JUMPER WILL NOT IMPACT SEAFLOOR AND FINAL CONFIGURATION WILL BE DETERMINED WHEN METROLOGY OF HUB CONNECTIONS IS COMPLETE.

PROFILE

VERTICAL EXAGGERATION = 1
HORIZONTAL: 0 50
VERTICAL: 0 50
U.S. SURVEY FEET

FIELDWOOD ENERGY

PROPOSED 6.625" WELL JUMPER

Orlov Well TA-9 Hub to Orlov PLET-1 Hub
Block 200, Green Canyon Area

PREPARED BY: OCEANEERING®

OCEANEERING INTERNATIONAL, INC.
730 E. KALISTE SALOOM RD.
LAFAYETTE, LA 70508
(337) 210-0000
LA Reg. No. 747

JOB: 198228	DRW: A. Mayet	DATE: March 29, 2019
CKD: A. McBride	APP: R. Coleman	SHEET 2 of 2
DOC: 198228-OII-DRW-PRM-002-02		REV. 0

SIZE: 8.5" X 11" DATE: 03/29/2019 TIME: 12:15 FILENAME: Z:\198228\ACAD\PERMIT\198228-OII-DRW-PRM-002.DWG

Ali Ferguson

From: notification@pay.gov
Sent: Wednesday, July 3, 2019 2:54 PM
To: Ali Ferguson
Subject: Pay.gov Payment Confirmation: BOEM Development/DOCD Plan - BD


An official email of the United States government

Your payment has been submitted to Pay.gov and the details are below. If you have any questions regarding this payment, please contact Brenda Dickerson at (703) 787-1617 or BseeFinanceAccountsReceivable@bsee.gov.

Application Name: BOEM Development/DOCD Plan - BD
Pay.gov Tracking ID: 26IJ0GIO
Agency Tracking ID: 75785983216
Transaction Type: Sale
Transaction Date: 07/03/2019 03:53:50 PM EDT
Account Holder Name: Brenda Montalvo
Transaction Amount: $4,238.00
Card Type: MasterCard
Card Number: **********6662

Region: Gulf of Mexico
Contact: Ali Ferguson 713-969-1308
Company Name/No: Fieldwood Energy Offshore LLC, 03035
Lease Number(s): 12209, , , ,
Area-Block: Green Canyon GC, 200: , : , : , : ,
Type-Wells: Supplemental Plan, 1

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.


Pay.gov is a program of the U.S. Department of the Treasury, Bureau of the Fiscal Service

SECTION B
GENERAL INFORMATION

(a) Applications and Permits

Application	Purpose	Agency	Status
Revised Exploration Plan, R-6856	TA009 (ST01 BP00) Proposed Drilling	BOEM Plans Unit	In-review w/BOEM
OSRP	Update OSRO & WCD In Regional OSRP	BSEE	In-review w/BSEE
Application for Permit to Sidetrack	Drilling Permit	BSEE Houma District	In-review w/BSEE
Pipeline Installation	Lease Term Jumper Installation (Segment No. 20194)	BSEE Pipelines Unit	In-review w/BSEE
Application for Permit to Modify	Initial Completion Permit	BSEE Houma District	To be submitted

(b) Drilling Fluids

Fieldwood is not proposing any drilling operations under this SDOCD and therefore, this information is not required.

(c) Production

Proprietary Information

(d) Oils Characteristics

Per NTL 2008-G04, oil characteristics information is not required.

(e) New or Unusual Technology

Fieldwood does not plan to use any new or unusual technology for the proposed operations being conducted under this plan.

(f) Bonding Statement, oil spill financial responsibility, and well control statements

The bond requirements for the activities and facilities proposed in this SDOCD are satisfied by a $3,000,000.00 area-wide bond, furnished and maintained according to 30 CFR 556.901; NTL No. 2015-BOEM-N04 "General Financial Assurance;" and additional security under 30 CFR 556.901 (d) - (f) and NTL No. 2016-BOEM N01, “Requiring Additional Security.”

(g) Oil Spill Financial Responsibility (OSFR)

Fieldwood Energy (BOEM company number 03295) has demonstrated oil spill financial responsibility for the facilities proposed in this SDOCD according to 30 CFR Part 253; and NTL No. 2008-N05, "Guidelines for Oil Spill Financial Responsibility for Covered Facilities."

(h) Deepwater Well Control Statement

Fieldwood will have the financial capability to drill a relief well and conduct any other emergency well control operation.

(i) Suspensions of Production

Lease No. OCS-G12209 is held by unit production (Green Canyon 244 Unit Agreement Number 754393016). Fieldwood does not anticipate filing any suspensions of production.

(j) Blowout Scenario

No drilling operation is being conducted under this plan, therefore a blowout scenario is not provided per NTL No. 2015-N01.

Note that a blowout scenario was submitted under Revised Exploration Plan, Control No. R-6856 for the drilling of this well.

(k) Chemical Products

Per NTL 2008-G04, chemical productions information is not required.

SECTION C
GEOLOGICAL AND GEOPHYSICAL INFORMATION

(a) Geologic Description

Proprietary Information

(b) Structure Contour Map(s) and (c) Interpreted Seismic Lines

Proprietary Information

(d) Geological Structure Cross-Sections

Proprietary Information

(e) Shallow Hazards Report and (f) Shallow Hazards Assessment

An archaeological and geohazard assessment titled, "AUV/3D Seismic Shallow Hazard and Archaeological Report," was conducted over Green Canyon Block 200 in 2018 by Oceaneering International, Inc (OII). OII assigned the report Project Number 189363 and on May 5, 2018, BOEM assigned the referenced report Survey No. 24200.

A Well Site Clearance Letter based on that report was included under the approved Supplemental Exploration Plan Control No. S-7899.

(g) High Resolution Seismic Lines

The proposed operations will be conducted from a previously approved surface location; therefore, annotated high-resolution survey lines are not being submitted under this plan.

(h) Stratigraphic Column

Proprietary Information

(i) Time vs Depth Tables

Per NTL 2008-G04 a time versus depth chart is not required

SECTION D
HYDROGEN SULFIDE INFORMATION

(a) Concentration

Fieldwood does not anticipate encountering any H_2S during the proposed operations.

(b) Classification

In accordance with 30 CFR 250.490(c), Lease No. OCS-G12209 (Green Canyon Block 200) has been classified by BOEM as H2S absent under the following Plans for the subsea TA009 well submitted by Fieldwood:

Control No. S-7899 approved on September 21, 2018
Control No. R-6772 approved on November 19, 2018

(c) Contingency Plan

Fieldwood does not anticipate encountering H_2S while conducting our proposed development activities.

(d) Modeling Report

Fieldwood does not anticipate encountering H_2S while conducting our proposed development activities therefore a modeling report is not required at this time.

SECTION E
MINERAL RESOURCE CONSERVATION INFORMATION

(a) Technology & Reservoir Engineering Practices and Procedures and (b) Technology and Recovery Practices and Procedures

Proprietary Information

(c) Reservoir Development

Proprietary Information

SECTION F
BIOLOGICAL, PHYSICAL AND SOCIOECONOMIC INFORMATION

(a) Deepwater Benthic Communities

The water depths in the study area exceed 300 meters (984 feet), the minimum depth for deepwater benthic community potential as outlined in NTL No. 2009-G40. NTL No. 2009-G40 states a separation distance of 250 feet for seafloor disturbances and 2000 feet for drill centers. The multibeam, side scan sonar, subbottom profiler data, and 3D seismic seafloor amplitudes were reviewed for high-density deepwater communities. The review of the data did not identify any potential high-density deepwater benthic communities or shallow gas accumulations within the study area. Therefore, impact to deepwater benthic communities during drilling and field development is considered negligible.

An archaeological and geohazard assessment titled, "AUV/3D Seismic Shallow Hazard and Archaeological Report," was conducted over Green Canyon Block 200 in 2018 by Oceaneering International, Inc (OII). OII assigned the report Project Number 189363 and on May 5, 2018, BOEM assigned the referenced report Survey No. 24200.

A Well Site Clearance Letter based on that report was included under the approved Supplemental Exploration Plan Control No. S-7899.

(b) Topographic Features Map

Activities proposed in this SDOCD do not fall within 305 meters (1,000 feet) of the "no activity zone," therefore no map is required.

(c) Topographic Features Statement

Per NTL 2008-G04, topographic features information is not required for DOCDs.

(d) Live Bottoms (Pinnacle Trend) Map

Green Canyon Block 200 is not located within 61 meters (200 feet) of any live-bottom (pinnacle trend) features.

(e) Live Bottoms (Low Relief) Map

Green Canyon Block 200 is not located within 100 feet of any live-bottom (low-relief) features.

(f) Potentially Sensitive Biological Features

Green Canyon Block 200 is not located within 30 meters (100 feet) of potentially sensitive biological features.

(g) Threatened and Endangered Species, Critical Habitat, and Marine Mammal Information

Under Section 7 of the Endangered Species Act (ESA) all federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species, or destroy or adversely modify its designated critical habitat.

In accordance with 30 CFR 250, Subpart B, effective May 14, 2007, and further outlined in Notice to Lessees (NTL) 2008-G04, lessees/operators are required to address site-specific information on the presence of federally listed threatened or endangered species and critical habitat designated under the ESA and marine mammals protected under the Marine Mammal Protection Act (MMPA) in the area of proposes activities under this plan.

NOAA Fisheries currently lists the Sperm Whale, Leatherback Turtle, Green Turtle, Hawksbill Turtle, and the Kemp's Ridley Turtle as endangered and the Loggerhead Turtle and Gulf Sturgeon as threatened. Currently there are no designated critical habitats for the listed species in the Gulf of Mexico Outer Continental Shelf, however, it is possible that one or more of these species could be seen in the area of our operations.

(h) Archaeological Report

An archaeological and geohazard assessment titled, "AUV/3D Seismic Shallow Hazard and Archaeological Report," was conducted over Green Canyon Block 200 in 2018 by Oceaneering International, Inc (OII). OII assigned the report Project Number 189363 and on May 5, 2018, BOEM assigned the referenced report Survey No. 24200.

A Well Site Clearance Letter based on that report was included under the approved Supplemental Exploration Plan Control No. S-7899.

(i) Air and Water Quality Information and (j) Socioeconomic Information

Per NTL 2008-G04, air and water quality information and socioeconomic information is not required for DOCDs outside the state of Florida.

SECTION G
WASTES AND DISCHARGES INFORMATION

(a) Projected Generated Wastes and (b) Projected Ocean Discharges

Please see Table 1 titled, "*Wastes you will Generate, Treat, and Downhole Dispose or Discharge to the GOM*" enclosed under this section.

(c) Modeling Report, (d) NPDES Permits, and (e) Cooling Water Intakes

Per NTL 2008-G04, a modeling report, NPDES permit information, and cooling water intakes information is not required for operations performed under this SDOCD.

Attachments

1) Table 1, "*Wastes you will Generate, Treat, and Downhole Dispose or Discharge to the GOM*" (*Attachment G-1*)

TABLE 1. WASTE ESTIMATED TO BE GENERATED, TREATED AND/OR DOWNHOLE DISPOSED OR DISCHARGED TO THE GOM

Please specify if the amount reported is a total or per well amount and be sure to include appropriate units.

Projected generated waste			Projected ocean discharges		Projected Downhole Disposal
Type of Waste	**Composition**	**Projected Amount**	**Discharge rate**	**Discharge Method**	**Answer yes or no**
Will drilling occur ? If yes, you should list muds and cuttings					
Water-based drilling fluid	N/A - no drilling will occur	N/A	N/A	N/A	N/A
Cuttings wetted with water-based fluid	N/A - no drilling will occur	N/A	N/A	N/A	N/A
Cuttings wetted with synthetic-based fluid	N/A - no drilling will occur	N/A	N/A	N/A	N/A
Will humans be there? If yes, expect conventional waste					
Domestic waste	N/A	N/A	N/A	N/A	N/A
Sanitary waste	Sanitary waste from living quarters	3,200/gal	132/gal/hr	chlorinate and discharge overboard	No
Is there a deck? If yes, there will be Deck Drainage					
Deck Drainage	Rain Water	100 gals	4/gal hour	discharge overboard	No
Will you conduct well treatment, completion, or workover?					
Well treatment fluids	N/A - no well activities	N/A	N/A	N/A	N/A
Well completion fluids	N/A - no well activities	N/A	N/A	N/A	N/A
Workover fluids	N/A - no well activities	N/A	N/A	N/A	N/A
Miscellaneous discharges. If yes, only fill in those associated with your activity.					
Desalinization unit discharge	N/A	N/A	N/A	N/A	N/A
Blowout prevent fluid	N/A	N/A	N/A	N/A	N/A
Ballast water	N/A	N/A	N/A	N/A	N/A
Bilge water	N/A	N/A	N/A	N/A	N/A
Excess cement at seafloor	N/A	N/A	N/A	N/A	N/A
Fire water	N/A	N/A	N/A	N/A	N/A
Cooling water	N/A	N/A	N/A	N/A	N/A
Will you produce hydrocarbons? If yes fill in for produced water.					
Produced water	N/A	N/A	N/A	N/A	N/A

Please enter individual or general to indicate which type of NPDES permit you will be covered by?

NOTE: If you will not have a type of waste for the activity being applied for, enter NA for all columns in the row.

NOTE: All discharged wastes should comply with the requirements of the NPDES permit.

SECTION H
AIR EMISSIONS INFORMATION

(a) Emissions Worksheets and Screening Questions

(1) Emissions Worksheets

Enclosed (**Attachment H-1**) are one set of emissions worksheets showing the emissions calculations for the Plan Emissions.

Note that while the subsea well surfaces and bottoms in Green Canyon Block 200, production will flow back to the Green Canyon Block 65 A-Bullwinkle platform (Complex ID No. 23552) for production purposes. The additional production from the TA009 (ST01 BP00) well from the A-Bullwinkle platform will not cause an increase in approved emissions and therefore, no emissions worksheets are provided under this SDOCD for that structure. The air emissions for the A-Bullwinkle Platform were submitted under Control No. R- 6861.

(2) Screening Questions

Screen Procedures for DOCDs	Yes	No
Is any calculated Complex Total (CT) Emission amount (tons) associated with your proposed development activities more than 90% of the amounts calculated using the following formulas: CT = $3400D^{2/3}$ for CO, and CT = 33.3D for the other air pollutants (where D = distance to shore in miles)?		**X**
Do your emission calculations include any emission reduction measures or modified emission factors?		**X**
Does or will the facility complex associated with your proposed development and production activities process production from eight or more wells?		**X**
Do you expect to encounter H_2S at concentrations greater than 20 parts per million (ppm)?		**X**
Do you propose to flare or vent natural gas in excess or criteria set for the under 250.1105(a)(2) and (3)?		**X**
Do you propose to burn produced hydrocarbon liquids?		**X**
Are your proposed development and production activities located within 25 miles (40 kilometers) from shore?		**X**
Are your proposed development and production activities located within 124 miles (200 kilometers) of the Breton Wilderness Area?		**X**

Contact Information			
Description	**Name**	**Email Address**	**Telephone Number**
Preparer	Marla Begnaud	marla.begnaud@fwellc.com	337-354-8039
Secondary	Ali Ferguson	ali.ferguson@fwellc.com	713-969-1308

Attachments

1) Air Emissions Worksheets (*Attachment H-1*)

DOCD AIR QUALITY SCREENING CHECKLIST

OMB Control No. 1010-0151
OMB Approval Expires: 06/30/2021

COMPANY	Fieldwood Energy Offshore LLC
AREA	Green Canyon
BLOCK	200
LEASE	OCS-G12209
PLATFORM	
WELL	
COMPANY CONTACT	Marla Begnaud
TELEPHONE NO.	337-354-8039
REMARKS	Install a lease term jumper in GC 200

LEASE TERM PIPELINE CONSTRUCTION INFORMATION:		
YEAR	NUMBER OF PIPELINES	TOTAL NUMBER OF CONSTRUCTION DAYS
2019	1	4
2020		
2021		
2022		
2023		
2024		
2025		
2026		
2027		
2028		
2029		

AIR EMISSIONS CUMPUTATION FACTORS

Fuel Usage Conversion Factors	Natural Gas Turbines		Natural Gas Engines		Diesel Recip. Engine		REF.	DATE
	SCF/hp-hr	9.524	SCF/hp-hr	7.143	GAL/hp-hr	0.0483	AP42 3.2-1	4/76 & 8/84

Equipment/Emission Factors	units	PM	SOx	NOx	VOC	CO	REF.	DATE
NG Turbines	gms/hp-hr		0.00247	1.3	0.01	0.83	AP42 3.2-1& 3.1-1	10/96
NG 2-cycle lean	gms/hp-hr		0.00185	10.9	0.43	1.5	AP42 3.2-1	10/96
NG 4-cycle lean	gms/hp-hr		0.00185	11.8	0.72	1.6	AP42 3.2-1	10/96
NG 4-cycle rich	gms/hp-hr		0.00185	10	0.14	8.6	AP42 3.2-1	10/96
Diesel Recip. < 600 hp.	gms/hp-hr	1	0.1835	14	1.12	3.03	AP42 3.3-1	10/96
Diesel Recip. > 600 hp.	gms/hp-hr	0.32	0.1835	11	0.33	2.4	AP42 3.4-1	10/96
Diesel Boiler	lbs/bbl	0.084	0.3025	0.84	0.008	0.21	AP42 1.3-12,14	9/98
NG Heaters/Boilers/Burners	lbs/mmscf	7.6	0.593	100	5.5	84	P42 1.4-1, 14-2, & 14	7/98
NG Flares	lbs/mmscf		0.593	71.4	60.3	388.5	AP42 11.5-1	9/91
Liquid Flaring	lbs/bbl	0.42	6.83	2	0.01	0.21	AP42 1.3-1 & 1.3-3	9/98
Tank Vapors	lbs/bbl				0.03		E&P Forum	1/93
Fugitives	lbs/hr/comp.				0.0005		API Study	12/93
Glycol Dehydrator Vent	lbs/mmscf				6.6		La. DEQ	1991
Gas Venting	lbs/scf				0.0034			

Sulphur Content Source	Value	Units
Fuel Gas	3.33	ppm
Diesel Fuel	0.05	% weight
Produced Gas(Flares)	3.33	ppm
Produced Oil (Liquid Flaring)	1	% weight

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL		CONTACT	PHONE	REMARKS
Fieldwood Energy Offshore LLC	Green Canyon	200	OCS-G12209				Marla Begnaud	337-354-8039	Install a lease term jumper in GC 200

OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	D/YR	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BURNER diesel	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(tugs)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE INSTALLATION	PIPELINE LAY BARGE diesel	21630	1044.729	25073.50	24	4	15.25	8.74	524.07	15.72	114.34	0.73	0.42	25.16	0.75	5.49
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PIPELINE BURY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	RECIP.<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIP.>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TURBINE nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.2 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle rich nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	BURNER nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK-	0			0	0				0.00					0.00	
	FLARE-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-		0		0	0				0.00					0.00	
	FUGITIVES-			0.0		0				0.00					0.00	
	GLYCOL STILL VENT-		0		0	0				0.00					0.00	
DRILLING WELL TEST	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2019 YEAR TOTAL							15.25	8.74	524.07	15.72	114.34	0.73	0.42	25.16	0.75	5.49
EXEMPTION CALCULATION	DISTANCE FROM LAND IN MILES											2930.40	2930.40	2930.40	2930.40	67266.79
	88.0															

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL		CONTACT	PHONE	REMARKS
Fieldwood Energy Offsh	Green Canyon	200	OCS-G12209				Marla Begnaud	337-354-8039	

OPERATIONS	EQUIPMENT	RATING	MAX. FUEL	ACT. FUEL	RUN TIME		MAXIMUM POUNDS PER HOUR					ESTIMATED TONS				
	Diesel Engines	HP	GAL/HR	GAL/D												
	Nat. Gas Engines	HP	SCF/HR	SCF/D												
	Burners	MMBTU/HR	SCF/HR	SCF/D	HR/D	D/YR	PM	SOx	NOx	VOC	CO	PM	SOx	NOx	VOC	CO
DRILLING	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PRIME MOVER>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	BURNER diesel	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	AUXILIARY EQUIP<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(tugs)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PIPELINE INSTALLATION	PIPELINE LAY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	PIPELINE BURY BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FACILITY INSTALLATION	DERRICK BARGE diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MATERIAL TUG diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(crew)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	VESSELS>600hp diesel(supply)	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PRODUCTION	RECIP.<600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	RECIP.>600hp diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	SUPPORT VESSEL diesel	0	0	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	TURBINE nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.2 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle lean nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	RECIP.4 cycle rich nat gas	0	0	0.00	0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	BURNER nat gas	0	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	MISC.	BPD	SCF/HR	COUNT												
	TANK-	0			0	0				0.00					0.00	
	FLARE-		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
	PROCESS VENT-		0		0	0				0.00					0.00	
	FUGITIVES-			0.0		0				0.00					0.00	
	GLYCOL STILL VENT-		0		0	0				0.00					0.00	
DRILLING	OIL BURN	0			0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WELL TEST	GAS FLARE		0		0	0		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00
2020-2023 YEAR TOTAL							**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
EXEMPTION CALCULATION	**DISTANCE FROM LAND IN MILES**											**2930.40**	**2930.40**	**2930.40**	**2930.40**	**67266.79**
	88.0															

AIR EMISSIONS CALCULATIONS

COMPANY	AREA	BLOCK	LEASE	PLATFORM	WELL
Fieldwood Energ	Green Canyon	200	OCS-G12209		

Year	Emitted Substance				
	PM	SOx	NOx	VOC	CO
2019	0.73	0.42	25.16	0.75	5.49
2020-2023	0.00	0.00	0.00	0.00	0.00
Allowable	2930.40	2930.40	2930.40	2930.40	67266.79

SECTION I
OIL SPILLS INFORMATION

(a) Oil Spill Response Planning

(a)(2)(i) Regional OSRP Information

All of the proposed activities and facilities in this SDOCD will be covered by the Oil Spill Response Plan (OSRP) filed by Fieldwood (BOEM Operator No. 03035) in accordance with 30 CFR 254. The Fieldwood OSRP was found in compliance on January 25, 2018 and the latest revision was approved on May 29, 2019. **An update to Fieldwood's ORSP was submitted on June 19, 2019 - the chart below lists the Regional OSRP column that is currently under review with BSEE.**

(a)(2)(ii) Spill Response Sites

Primary Response Equipment Location	Preplanned Staging Location(s)
Houma, LA Kiln, MS Leeville, LA Venice, LA	Houma, LA Kiln, MS Leeville, LA Port Fourchon, LA

(a)(2)(iii) OSRO Information

Fieldwood's primary equipment providers are Clean Gulf Associates (CGA) and Marine Spill Response Corporation (MSRC). Clean Gulf Associates Services, LLC (CGAS) will provide closest available personnel, as well as a CGAS supervisor to operate the equipment. MSRC personnel are responsible for operating MSRC response equipment.

(a)(2)(iv) Worst-Case Scenario Determination

Category	Regional OSRP WCD	DOCD WCD
Type of Activity	Production >10 Miles Seaward of the Coastline	Production >10 Miles Seaward of the Coastline
Facility Location (Area/Block)	*Green Canyon 200*	*Green Canyon 200*
Facility Designation	*Well TA009 (ST01 BP00)*	*Well TA009 (ST01 BP00)*
Distance to Nearest Shoreline (miles)	*88 miles*	*88 miles*
Volume **Storage tanks (drillship)** **Uncontrolled blowout** **Pipelines** **Total Volume**	 0 49,722 4,967 **54,689**	 0 49,722 4,967 **54,689**
Type of Oil(s) *(crude, condensate, diesel)*	*Crude*	*Crude*
API Gravity	*24.9°*	*24.9°*

Fieldwood has determined that the worst-case scenario from the activities proposed in this SDOCD ***supersede*** the worst-case scenario from our approved Regional OSRP, therefore Fieldwood submitted a revision to the Regional OSRP on June 19, 2019 and it is currently under review.

Fieldwood hereby certifies that it has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in this SDOCD.

(b) Spill Response Discussion for NEPA Analysis

No drilling operation is being conducted under this plan, therefore a spill response discussion is not provided per NTL No. 2015-N01.

(c) Modeling Report

Per NTL 2008-G04, a modeling report is not required for operations performed under this SDOCD.

SECTION J
ENVIRONMENTAL MONITORING INFORMATION

(a) Monitoring Systems

There are no environmental monitoring systems currently in place or planned for the proposed activities.

(b) Incidental Takes

No incidental takes are anticipated. Fieldwood implements the mitigation measures and monitors for incidental takes of protected species according to the following notices to lessees and operators from both BOEM and BSEE:

- **NTL 2015-G03** "Marine Trash and Debris Awareness and Elimination"
- **NTL 2016-G01** "Vessel Strike Avoidance and Injured/Dead Protected Species Reporting"
- **NTL 2016-G02** "Implementation of Seismic Survey Mitigation Measure & Protected Species Observer Program"

(c) Flower Garden Banks National Marine Sanctuary

Green Canyon Block 200 is not located in the Flower Garden Banks National Marine Sanctuary therefore, per NTL 2008-G04, the information is not required for operations performed under this SDOCD.

SECTION K
LEASE STIPULATIONS INFORMATION

Green Canyon Block 200, Lease No. OCS-G12209 is subject to the following lease stipulations:

- **Stipulation No.1: Protection of Archaeological Resources**
  Lease Stipulation No.1 is protection of archaeological resources such as any prehistoric or historic district, site, building, structure or object (including shipwrecks); such term includes artifacts, records, and remains which are related to such a district, site, building, structure or object. If lessee discovers any archaeological resource while conducting operations on the lease area, the lessee shall report the discovery immediately to the Regional Director (RD). The lessee shall make every reasonable effort to preserve the archaeological resource until the RD has told the lessee how to protect it.

- **Stipulation No.4: Military Area (W-92)**
  Green Canyon Block 200 is located within designated Military Warning Area 92 (MWA-92). The Fleet Area Control and Surveillance Facility will be contacted in order to coordinate and control the electromagnetic emissions during the proposed operations.

In addition to the above stipulation, Fieldwood will operate in accordance with the following Notices to Lessees (NTLs) in order to minimize the risk of vessel strikes to protected species and report observations of injured or dead protected species, and the prevention of intentional and/or accidental introduction of debris into the marine environment:

- **NTL No. 2015-G03** "Marine Trash and Debris Awareness and Elimination"
- **NTL No. 2016-G01** "Vessel Strike Avoidance and lnjured/Dead Protected Species Reporting"
- **NTL No. 2016-G02** "Implementation of Seismic Survey Mitigation Measures and Protected Species Observer Program"

SECTION L
ENVIRONMENTAL MITIGATION MEASURES INFORMATION

(a) Measures Taken to Minimize or Mitigate Environmental Impacts

The proposed action will implement mitigation measures required by laws and regulations, including all applicable Federal & State requirements concerning air emissions, discharges to water, and solid waste disposal, as well as any additional permit requirements and Fieldwood's policies. Project activities will be conducted in accordance with the Regional OSRP.

(b) Incidental Takes

Fieldwood does not anticipate any incidental takes related to the proposed operations. Fieldwood implements the mitigation measures and monitors for incidental takes of protected species according to the following notices to lessees and operators from both BOEM and BSEE:

- **NTL No. 2015-G03** "Marine Trash and Debris Awareness and Elimination"
- **NTL No. 2016-G01** "Vessel Strike Avoidance and lnjured/Dead Protected Species Reporting"
- **NTL No. 2016-G02** "Implementation of Seismic Survey Mitigation Measures and Protected Species Observer Program"

SECTION M
RELATED FACILITIES AND OPERATIONS INFORMATION

(a) Related OCS Facilities and Operations

Fieldwood is proposing to further develop the Orlov field by adding production from the future TA009 (ST01 BP00) well to be spud in Green Canyon Block 200.

The Orlov development is located in Green Canyon Block 200, approximately 2,500-feet water depth. The TA009 (ST01 BP00) well will be tied back to the Green Canyon 65 A-Bullwinkle Platform (Complex ID No. 23552-1) which sits in +/- 1,350-feet water. The A-Bullwinkle facility is located at a latitude of 27.88309663 and a longitude of -90.90151639.

Production from the TA009 (ST01 BP01) well will require the installation of a new production trees, control umbilical, and two jumpers. A new production tree will be installed on well TA009 (ST01 BP00) and will be connected, via a 95-foot, 6.625-inch jumper, to a proposed PLET. From the proposed PLET, an 8.625-inch rigid flowline (15,000-feet) will tie into an existing Droshky flowline, via proposed PLET and 100-foot jumper. A new 3.84-inch outer diameter 73,000-foot subsea umbilical will be installed from Green Canyon 65 A-Bullwinkle platform to the Orlov field in Green Canyon Block 200. The new umbilical will provide chemicals, power, communication, and hydraulics distributed from the Subsea Umbilical Termination (SUTA) to the new production field via flying leads. The signals and fluids being conveyed in this umbilical will originate from the Bullwinkle platform

In addition to the lease term jumper application, an application for an 8.625-inch subsea Right-of-Way Flowline to be installed from Lease No. OCS-G12209, Green Canyon Block 200 to Lease No. OCS-G28052, Green Canyon Block 156 and the associated Right-of-Way flowline jumper to be installed in Lease No. OCS-G28052, Green Canyon Block 156 (assigned Segment Nos. 20196 and 20197) as well as an application for a 3.84-inch subsea Right-of-Way Umbilical to be installed from Lease No. OCS-G05889, Green Canyon Block 65 A-Bullwinkle Platform to Lease No. OCS-G12209, Green Canyon Block 200 SUTA (assigned Segment No. 20195) are both under review with BSEE.

The product to be transported is production fluid from the TA009 (ST01 BP00) well with an API gravity of 24.9°.

(b) Transportation System

Fieldwood will use the existing transportation to transport production to shore. No new routes will be used.

(c) Produced Liquid Hydrocarbons Transportation Vessels

There will not be any transfers of liquid hydrocarbons other than via pipeline.

SECTION N
SUPPORT VESSELS AND AIRCRAFT INFORMATION

(a) General

Fieldwood will utilize the most practical, direct route from the shore base as permitted by weather and traffic conditions.

Type	Maximum Fuel Tank Capacity	Maximum Number in Area at Any Time	Trip Frequency or Duration
Lay Barge (Light Construction Vessel)	7,782 bbls	1	3 days

(b) Diesel Oil Supply Vessels and (c) Drilling Fluid Transportation

Per NTL 2008-G04, diesel oil supply vessel information and drilling fluid transportation information is not required for operations performed under this SDOCD.

(d) Solid and Liquid Waste Transportation

Please see Table 2 titled, "*Waste and Surplus Estimated to be Transported and/or Disposed of Onshore*" enclosed under this section of this plan (**Attachment N-1**).

(e) Vicinity Map

A vicinity map showing the location of the activities proposed herein relative to the shoreline with the distance of the proposed activities from the shoreline and the primary route(s) of the support vessels and aircraft that will be used when traveling between the onshore support facilities and the vessel.

The map is attached under this section (**Attachment N-2**).

Attachments

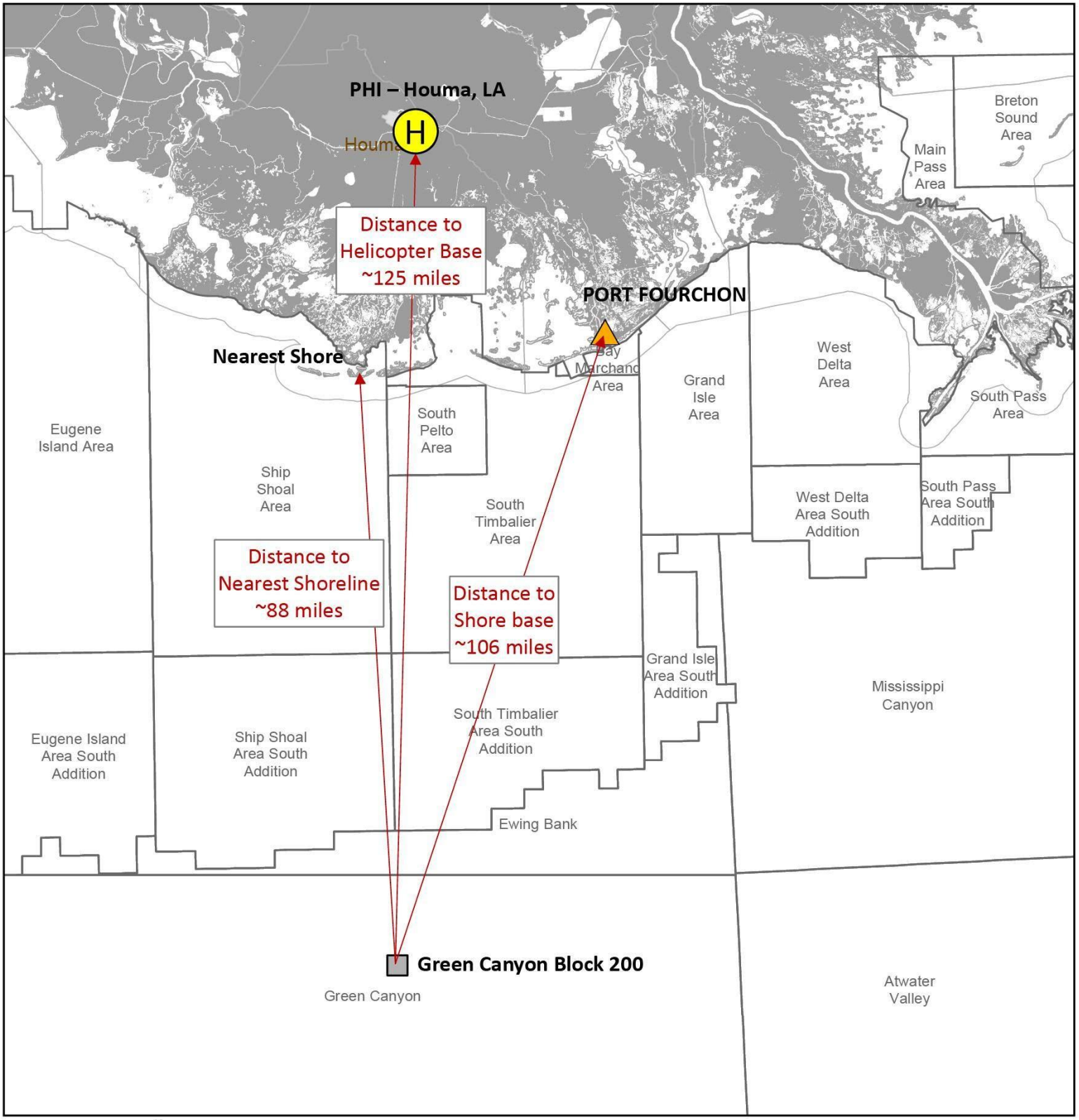
1) Table 2 "*Waste and Surplus Estimated to be Transported and/or Disposed of Onshore*" (*Attachment N-1*)
2) Vicinity Map (*Attachment N-2*)

TABLE 2. WASTE AND SURPLUS ESTIMATED TO BE TRANSPORTED AND/OR DISPOSED OF ONSHORE

please specify whether the amount reported is a total or per well

Projected generated waste		Solid and Liquid Wastes transportation	Waste Disposal		
Type of Waste	Composition	Transport Method	Name/Location of Facility	Amount	Disposal Method
Will drilling occur ? If yes, fill in the muds and cuttings.					
Oil-based drilling fluid or mud	N/A - no drilling will occur	N/A	N/A	N/A	N/A
Synthetic-based drilling fluid or mud	N/A - no drilling will occur	N/A	N/A	N/A	N/A
Cuttings wetted with Water-based fluid	N/A - no drilling will occur	N/A	N/A	N/A	N/A
Cuttings wetted with Synthetic-based fluid	N/A - no drilling will occur	N/A	N/A	N/A	N/A
Cuttings wetted with oil-based fluids	N/A - no drilling will occur	N/A	N/A	N/A	N/A
Will you produce hydrocarbons? If yes fill in for produced sand.					
Produced sand	N/A	N/A	N/A	N/A	N/A
Will you have additional wastes that are not permitted for discharge? If yes, fill in the appropriate rows.					
Trash and debris	Plastic, paper, aluminum	Stored in Compactor Bags in Bin	Fourchon, LA	200 lbs	Landfill
Used oil	N/A	N/A	N/A	N/A	N/A
Wash water	N/A	N/A	N/A	N/A	N/A
Chemical product wastes	N/A	N/A	N/A	N/A	N/A

NOTE: If you will not have a type of waste, enter NA in the row.



N
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MILES

Projection: UTM 15 N
Datum: NAD 27
Distance Units: Feet US

FIELDWOOD ENERGY

GC200 Vicinity Plat

OCS-G 12209
Green Canyon 200
Gulf of Mexico

SECTION O
ONSHORE SUPPORT FACILITIES INFORMATION

(a) General

The table below is the onshore facilities that will be used to provide supply and service support for the proposed activities under this plan:

Name	Location	Existing/New/Modified
Fieldwood Deepwater Shorebase OSS Dock / Port Fourchon	180 First Street Golden Meadow, LA 70357	Existing
PHI Heliport	Houma, LA	Existing

The distance from the PHI Heliport to the proposed activities under this plan is 125 miles. The location and distance is depicted on the vicinity map enclosed under Section N of this plan.

(b) Support Base Construction or Expansion and (c) Support Base Construction or Expansion Timetable

There will be no new construction of an onshore support base, nor will we expand the existing shorebase during the operations proposed in this SDOCD, therefore per NTL 2008-G04, this information is not required.

(d) Waste Disposal

Please see Table 2 titled, "*Waste and Surplus Estimated to be Transported and/or Disposed of Onshore*" enclosed under Section N of this plan.

SECTION P
COASTAL ZONE MANAGEMENT (CZMA) INFORMATION

A certificate of Coastal Zone Management (CZM) Consistency for Louisiana is not required under NTL 2008-G04 for the operations performed under this SDOCD.

Please note that while a CZM review is not required under this plan, the installation applications for Segment Nos. 20194, 20195, 20196, and 20197 were sent to the Louisiana Office of Coastal Zone Management as required by regulation for the pipeline permits and consistency was accepted. The concurrence letter dated July 3, 2019 is enclosed under this section for reference.

Attachments

1) CZM Concurrence for Orlov Project (*Attachment P-1*)

JOHN BEL EDWARDS
GOVERNOR

THOMAS F. HARRIS
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL MANAGEMENT

July 3, 2019

Ali Ferguson
Fieldwood Energy LLC
2000 W. Sam Houston Parkway South
Houston, Texas 77042
Via email: ali.ferguson@fwellc.com

RE: **C20190107,** Coastal Zone Consistency
Fieldwood Energy LLC
Bureau of Safety and Environmental Enforcement (BSEE)
Federal License or Permit
Orlov project: Proposed jumper in GC 200, umbilical from GC 65 to GC 200, and flowline and jumper from GC 200 to GC 156
Offshore, Louisiana

Dear Ms. Ferguson:

The above referenced project has been reviewed for consistency with the approved Louisiana Coastal Resources Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in the application, is consistent with the LCRP.

If you have any questions concerning this determination please contact Jeff Harris of the Consistency Section at (225) 342-7949 or jeff.harris@la.gov.

Sincerely yours,

/S/ Charles Reulet
Administrator
Interagency Affairs/Field Services Division

CR/MFH/jh

cc: BSEE ATTENTION PIPELINE APPROVALS
Angie Gobert, BSEE
Tershara Matthews, BOEM
Brian Cameron, BOEM
Idrissa Boube, BOEM

SECTION Q
ENVIRONMENTAL IMPACT ANALYSIS (EIA)

In accordance with the requirements of 30 CFR 550.227 and 550.261, an Environmental Impact Analysis (EIA) is enclosed as **Attachment Q-1**.

Attachments

1) Environmental Impact Analysis (*Attachment Q-1*)

Fieldwood Energy Offshore, LLC (Fieldwood)

Supplemental Development Operations Coordination Document
Green Canyon Block 200
OCS-G 12209

(A) IMPACT PRODUCING FACTORS

ENVIRONMENTAL IMPACT ANALYSIS WORKSHEET

Environment Resources	Impact Producing Factors (IPFs) Categories and Examples Refer to recent GOM OCS Lease Sale EIS for a more complete list of IPFs					
	Emissions (air, noise, light, etc.)	Effluents (muds, cutting, other discharges to the water column or seafloor)	Physical disturbances to the seafloor (rig or anchor emplacements, etc.)	Wastes sent to shore for treatment or disposal	Accidents (e.g., oil spills, chemical spills, H_2S releases)	Discarded Trash & Debris
Site-specific at Offshore Location						
Designated topographic features		(1)	(1)		(1)	
Pinnacle Trend area live bottoms		(2)	(2)		(2)	
Eastern Gulf live bottoms		(3)	(3)		(3)	
Benthic communities			(4)			
Water quality		X	X		X	
Fisheries		X	X		X	
Marine Mammals	X(8)	X			X(8)	X
Sea Turtles	X(8)	X			X(8)	X
Air quality	X(9)					
Shipwreck sites (known or potential)			X(7)			
Prehistoric archaeological sites			X(7)			
Vicinity of Offshore Location						
Essential fish habitat		X	X		X(6)	
Marine and pelagic birds	X				X	X
Public health and safety					(5)	
Coastal and Onshore						
Beaches					X(6)	X
Wetlands					X(6)	
Shore birds and coastal nesting birds					X(6)	X
Coastal wildlife refuges					X	
Wilderness areas					X	

Footnotes for Environmental Impact Analysis Matrix

1) Activities that may affect a marine sanctuary or topographic feature. Specifically, if the well or platform site or any anchors will be on the seafloor within the:
   - 4-mile zone of the Flower Garden Banks, or the 3-mile zone of Stetson Bank;
   - 1000-m, 1-mile or 3-mile zone of any topographic feature (submarine bank) protected by the Topographic Features Stipulation attached to an OCS lease;
   - Essential Fish Habitat (EFH) criteria of 500 ft. from any no-activity zone; or
   - Proximity of any submarine bank (500 ft. buffer zone) with relief greater than 2 meters that is not protected by the Topographic Features Stipulation attached to an OCS lease.
2) Activities with any bottom disturbance within an OCS lease block protected through the Live Bottom (Pinnacle Trend) Stipulation attached to an OCS lease.
3) Activities within any Eastern Gulf OCS block where seafloor habitats are protected by the Live Bottom (Low-Relief) Stipulation attached to an OCS lease.
4) Activities on blocks designated by the BOEM as being in water depths 300 meters or greater.
5) Exploration or production activities where H2S concentrations greater than 500 ppm might be encountered.
6) All activities that could result in an accidental spill of produced liquid hydrocarbons or diesel fuel that you determine would impact these environmental resources. If the proposed action is located a sufficient distance from a resource that no impact would occur, the EIA can note that in a sentence or two.
7) All activities that involve seafloor disturbances, including anchor emplacements, in any OCS block designated by the BOEM as having high-probability for the occurrence of shipwrecks or prehistoric sites, including such blocks that will be affected that are adjacent to the lease block in which your planned activity will occur. If the proposed activities are located a sufficient distance from a shipwreck or a prehistoric site that no impact would occur, the EIA can note that in a sentence or two.
8) All activities that you determine might have an adverse effect on endangered or threatened marine mammals or sea turtles or their critical habitats.
9) Production activities that involve transportation of produced fluids to shore using shuttle tankers or barges.

(B) ANALYSIS

Site-Specific at Green Canyon Block 200

Proposed operations consist of the installation of a lease term jumper and commence production of the TA009 (ST01) well in Green Canyon Block 200.

Operations will be conducted with a dynamically positioned vessel – lay barge.

1. Designated Topographic Features

Potential IPFs on topographic features include physical disturbances to the seafloor, effluents, and accidents.

Physical disturbances to the seafloor: Green Canyon Block 200 is not one of the identified blocks affected by the topographic features stipulation; therefore, no adverse impacts are expected.

Effluents: Green Canyon Block 200 is not one of the identified blocks affected by the topographic features stipulation; therefore, no adverse impacts are expected.

Accidents: It is unlikely that an accidental surface or subsurface spill would occur from the proposed activities (refer to statistics in **Item 5**, Water Quality). Oil spills cause damage to benthic organisms only if the oil contacts the organisms. Oil from a surface spill can be driven into the water column; measurable amounts have been documented down to a 10 m depth. At this depth, the oil is found only at concentrations several orders of magnitude lower than the amount shown to have an effect on corals. Because the crests of topographic features in the Northern Gulf of Mexico are found below 10 m, no oil from a surface spill could reach their sessile biota. Oil from a subsurface spill is not applicable due to the distance of these blocks from a topographic area. The activities proposed in this plan will be covered by Fieldwood's Regional OSRP (refer to information submitted in **Appendix H**).

There are no other IPFs (including emissions and wastes sent to shore for disposal) from the proposed activities, which could impact topographic features.

2. Pinnacle Trend Area Live Bottoms

Potential IPFs on pinnacle trend area live bottoms include physical disturbances to the seafloor, effluents, and accidents.

Physical disturbances to the seafloor: Green Canyon Block 200 is not one of the identified blocks affected by the live bottom (pinnacle trend) stipulation; therefore, no adverse impacts are expected.

Effluents: Green Canyon Block 200 is not one of the identified blocks affected by the live bottom (pinnacle trend) stipulation; therefore, no adverse impacts are expected.

Accidents: It is unlikely that an accidental surface or subsurface spill would occur from the proposed activities (refer to statistics in **Item 5**, Water Quality). Oil spills have the potential to foul benthic communities and cause lethal and sublethal effects on live bottom organisms. Oil from a surface spill can be driven into the water column; measurable amounts have been documented down to a 10 m depth. At this depth, the oil is found only at concentrations several orders of magnitude lower than the amount shown to have an effect on marine organisms. Oil from a subsurface spill is not applicable due to the distance of these blocks from a live bottom (pinnacle trend) area. The activities proposed in this plan will be covered by Fieldwood's Regional OSRP (refer to information submitted in **Appendix H**).

There are no other IPFs (including emissions and wastes sent to shore for disposal) from the proposed activities which could impact a live bottom (pinnacle trend) area.

3. Eastern Gulf Live Bottoms

Potential IPFs on Eastern Gulf live bottoms include physical disturbances to the seafloor, effluents, and accidents.

Physical disturbances to the seafloor: Green Canyon Block 200 is not located in an area characterized by the existence of live bottoms, and this lease does not contain a Live-Bottom Stipulation requiring a photo documentation survey and survey report.

Effluents: Green Canyon Block 200 is not located in an area characterized by the existence of live bottoms; therefore, no adverse impacts are expected.

Accidents: It is unlikely that an accidental surface or subsurface spill would occur from the proposed activities (refer to statistics in **Item 5**, Water Quality). Oil spills cause damage to live bottom organisms only if the oil contacts the organisms. Oil from a surface spill can be driven into the water column; measurable amounts have been documented down to a 10 m depth. At this depth, the oil is found only at concentrations several orders of magnitude lower than the amount shown to have an effect on marine invertebrates. Oil from a subsurface spill is not applicable due to the distance of these blocks from a live bottom area. The activities proposed in this plan will be covered by Fieldwood's Regional OSRP (refer to information submitted in **Appendix H**).

There are no other IPFs (including emissions and wastes sent to shore for disposal) from the proposed activities which could impact an Eastern Gulf live bottom area.

4. Benthic Communities

Green Canyon 200 is located in water depths 984 feet (300 meters) or greater. IPFs that could result in impacts to benthic communities from the proposed activities include physical disturbances to the seafloor.

Physical disturbances to the seafloor: Green Canyon 200 is not a known benthic community site, as listed in NTL 2009-G40. This Supplemental Development Operations Coordination Document submittal includes the required maps, analyses, and statement(s). The proposed activities will be contacted in accordance with NTL 2009-G40, which will ensure that features or areas that could support high-density benthic communities will not be impacted.

There are no other IPFs (including emissions, effluents, wastes sent to shore for disposal, or accidents) from the proposed activities which could impact benthic communities.

5. Water Quality

IPFs that could result in water quality degradation from the proposed operations in Green Canyon Block 200 include disturbances to the seafloor, effluents and accidents.

Physical disturbances to the seafloor: Bottom area disturbances resulting from the emplacement of drill rigs, the drilling of wells and the installation of platforms and pipelines would increase water-column turbidity and re-suspension of any accumulated pollutants, such as trace metals and excess nutrients. This would cause short-lived impacts on water quality conditions in the immediate vicinity of the emplacement operations.

Effluents: Levels of contaminants in drilling muds and cuttings and produced water discharges, discharge-rate restrictions and monitoring and toxicity testing are regulated by the EPA NPDES permit, thereby eliminating many significant biological or ecological effects. Operational discharges are not expected to cause significant adverse impacts to water quality.

Accidents: Oil spills have the potential to alter offshore water quality; however, it is unlikely that an accidental surface or subsurface spill would occur from the proposed activities. Between 1980 and 2000, OCS operations produced 4.7 billion barrels of oil and spilled only 0.001 percent of this oil, or 1 bbl for every 81,000 bbl produced. The spill risk related to a diesel spill from drilling operations is even less. Between 1976 and 1985, (years for which data were collected), there were 80 reported diesel spills greater than one barrel associated with drilling activities. Considering that there were 11,944 wells drilled, this is a 0.7 percent probability of an occurrence. If a spill were to occur, the water quality of marine waters would be temporarily affected by the dissolved components and small oil droplets. Dispersion by currents and microbial degradation would remove the oil from the water column and dilute the constituents to background levels. Historically, changes in offshore water quality from oil spills have only been detected during the life of the spill and up to several months afterwards. Most of the components of oil are insoluble in water and therefore float. The activities proposed in this plan will be covered by Fieldwood's Regional Oil Spill Response Plan (refer to information submitted in **Appendix H**).

There are no other IPFs (including emissions, physical disturbances to the seafloor, and wastes sent to shore for disposal) from the proposed activities which could cause impacts to water quality.

6. Fisheries

IPFs that could cause impacts to fisheries as a result of the proposed operations in Green Canyon Block 200 include physical disturbances to the seafloor, effluents and accidents.

Physical disturbances to the seafloor: The emplacement of a structure or drilling rig results in minimal loss of bottom trawling area to commercial fishermen. Pipelines cause gear conflicts which result in losses of trawls and shrimp catch, business downtime and vessel damage. Most financial losses from gear conflicts are covered by the Fishermen's Contingency Fund (FCF). The emplacement and removal of facilities are not expected to cause significant adverse impacts to fisheries.

Effluents: Effluents such as drilling fluids and cuttings discharges contain components and properties which are detrimental to fishery resources. Moderate petroleum and metal contamination of sediments and the water column can occur out to several hundred meters down-current from the discharge point. Offshore discharges are expected to disperse and dilute to very near background levels in the water column or on the seafloor within 3,000 m of the discharge point, and are expected to have negligible effect on fisheries.

Accidents: An accidental oil spill has the potential to cause some detrimental effects on fisheries; however, it is unlikely that such an event would occur from the proposed activities (refer to **Item 5**, Water Quality). The effects of oil on mobile adult finfish or shellfish would likely be sublethal and the extent of damage would be reduced to the capacity of adult fish and shellfish to avoid the spill, to metabolize hydrocarbons, and to excrete both metabolites and parent compounds. The activities proposed in this plan will be covered by Fieldwood's Regional OSRP (refer to information submitted in **Appendix H**).

There are no IPFs from emissions, or wastes sent to shore for disposal from the proposed activities which could cause impacts to fisheries.

7. Marine Mammals

GulfCet II studies revealed that cetaceans of the continental shelf and shelf-edge were almost exclusively bottlenose dolphin and Atlantic spotted dolphin. Squid eaters, including dwarf and pygmy killer whale, Risso's dolphin, rough-toothed dolphin, and Cuvier's beaked whale, occurred most frequently along the upper slope in areas outside of anticyclones. IPFs that could cause impacts to marine mammals as a result of the proposed operations in Green Canyon Block 200 include emissions, effluents, discarded trash and debris, and accidents.

Emissions: Noises from drilling activities, support vessels and helicopters may elicit a startle reaction from marine mammals. This reaction may lead to disruption of marine mammals' normal activities. Stress may make them more vulnerable to parasites, disease, environmental contaminants, and/or predation (Majors and Myrick, 1990). There is little conclusive evidence for long-term displacements and population trends for marine mammals relative to noise.

Effluents: Drilling fluids and cuttings discharges contain components which may be detrimental to marine mammals. Most operational discharges are diluted and dispersed upon release. Any potential impact from drilling fluids would be indirect, either as a result of impacts on prey items or possibly through ingestion in the food chain (API, 1989).

Discarded trash and debris: Both entanglement in, and ingestion of debris have caused the death or serious injury of marine mammals (Laist, 1997; MMC, 1999). The limited amount of marine debris, if any, resulting from the proposed activities is not expected to substantially harm marine mammals. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA).

Fieldwood will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on all vessels and facilities having sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "Think About It" (*previously "All Washed Up: The Beach Litter Problem"*). Thereafter, all personnel will view the marine trash and debris training video annually. Offshore personnel will also receive an explanation from Fieldwood management or the designated lease operator management that emphasizes their commitment to waste management in accordance with NTL No. 2015-G03-BSEE.

Accidents: Collisions between support vessels and cetaceans would be unusual events, however should one occur, death or injury to marine mammals is possible. Contract vessel operators can avoid marine mammals and reduce potential deaths by maintaining a vigilant watch for marine mammals and maintaining a safe distance when they are sighted. Vessel crews should use a reference guide to help identify the twenty-eight species of whales and dolphins, and the single species of manatee that may be encountered in the Gulf of Mexico OCS. Vessel crews must report sightings of any injured or dead protected marine mammal species immediately,

regardless of whether the injury or death is caused by their vessel, to the Marine Mammal and Sea Turtle Stranding Hotline at (888) 404-3922, the NMFS Southeast Regional Office at (727) 824-5312, or the Marine Mammal Stranding Network at (305) 862-2850. In addition, if the injury or death was caused by a collision with a contract vessel, the BOEM must be notified within 24 hours of the strike by email to protectedspecies@bsee.gov. If the vessel is the responsible party, it is required to remain available to assist the respective salvage and stranding network as needed.

Oil spills have the potential to cause sublethal oil-related injuries and spill-related deaths to marine mammals. However, it is unlikely that an accidental oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Oil spill response activities may increase vessel traffic in the area, which could add to changes in cetacean behavior and/or distribution, thereby causing additional stress to the animals. The effect of oil dispersants on cetaceans is not known. The acute toxicity of oil dispersant chemicals included in Fieldwood's OSRP is considered to be low when compared with the constituents and fractions of crude oils and diesel products. The activities proposed in this plan will be covered by Fieldwood's OSRP (refer to information submitted in accordance with **Appendix H**).

There are no other IPFs (including physical disturbances to the seafloor) from the proposed activities which could impact marine mammals.

8. Sea Turtles

IPFs that could cause impacts to sea turtles as a result of the proposed operations include emissions, effluents, discarded trash and debris, and accidents. GulfCet II studies sighted most loggerhead, Kemp's ridley and leatherback sea turtles over shelf waters. Historically these species have been sighted up to the shelf's edge. They appear to be more abundant east of the Mississippi River than they are west of the river (Fritts et al., 1983b; Lohoefener et al., 1990). Deep waters may be used by all species as a transitory habitat.

Emissions: Noise from drilling activities, support vessels, and helicopters may elicit a startle reaction from sea turtles, but this is a temporary disturbance.

Effluents: Drilling fluids and cuttings discharges are not known to be lethal to sea turtles. Most operational discharges are diluted and dispersed upon release. Any potential impact from drilling fluids would be indirect, either as a result of impacts on prey items or possibly through ingestion in the food chain (API, 1989).

Discarded trash and debris: Both entanglement in, and ingestion of, debris have caused the death or serious injury of sea turtles (Balazs, 1985). The limited amount of marine debris, if any, resulting from the proposed activities is not expected to substantially harm sea turtles. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies

including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Fieldwood will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on all vessels and facilities having sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "Think About It" (*previously "All Washed Up: The Beach Litter Problem"*). Thereafter, all personnel will view the marine trash and debris training video annually. Offshore personnel will also receive an explanation from Fieldwood management or the designated lease operator management that emphasizes their commitment to waste management in accordance with NTL No. 2015-G03-BSEE.

Accidents: Collisions between support vessels and sea turtles would be unusual events, however should one occur, death or injury to sea turtles is possible. Contract vessel operators can avoid sea turtles and reduce potential deaths by maintaining a vigilant watch for sea turtles and maintaining a safe distance when they are sighted. Vessel crews should use a reference guide to help identify the five species of sea turtles that may be encountered in the Gulf of Mexico OCS. Vessel crews must report sightings of any injured or dead protected sea turtle species immediately, regardless of whether the injury or death is caused by their vessel, to the Marine Mammal and Sea Turtle Stranding Hotline at (888) 404-3922, the NMFS Southeast Regional Office at (727) 824-5312, or the Marine Mammal Stranding Network at (305) 862-2850. In addition, if the injury or death was caused by a collision with a contract vessel, the BOEM must be notified within 24 hours of the strike by email to protectedspecies@bsee.gov. If the vessel is the responsible party, it is required to remain available to assist the respective salvage and stranding network as needed.

All sea turtle species and their life stages are vulnerable to the harmful effects of oil through direct contact or by fouling of their food. Exposure to oil can be fatal, particularly to juveniles and hatchlings. However, it is unlikely that an accidental oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Oil spill response activities may increase vessel traffic in the area, which could add to the possibility of collisions with sea turtles. The activities proposed in this plan will be covered by Fieldwood's Regional Oil Spill Response Plan (refer to information submitted in accordance with **Appendix H**).

There are no other IPFs (including physical disturbances to the seafloor) from the proposed activities which could impact sea turtles.

9. Air Quality

Green Canyon Block 200 is located 152 miles from the Breton Wilderness Area and 88 miles from shore. Applicable emissions data is included in **Appendix G** of the Plan.

There would be a limited degree of air quality degradation in the immediate vicinity of the proposed activities. Plan emissions for the proposed activities do not exceed the annual exemption levels as set forth by BOEM. Accidents and blowouts can release hydrocarbons or chemicals, which could cause the emission of air pollutants. However, these releases would not impact onshore air quality because of the prevailing atmospheric conditions, emission height, emission rates, and the distance of Green Canyon Block 200 from the coastline. There are no other IPFs (including effluents, physical disturbances to the seafloor, wastes sent to shore for treatment or disposal) from the proposed activities which would impact air quality.

10. Shipwreck Sites (known or potential)

IPFs that could cause impacts to known or unknown shipwreck sites as a result of the proposed operations in Green Canyon Block 200 are disturbances to the seafloor.

Physical Disturbances to the seafloor: Green Canyon Block 200 is not located within the area designated by BOEM as high-probability for occurrence of shipwrecks. Fieldwood will report to BOEM the discovery of any evidence of a shipwreck and make every reasonable effort to preserve and protect that cultural resource.

Accidents: An accidental oil spill has the potential to cause some detrimental effects to shipwreck sites if the release were to occur subsea. However, it is unlikely that an accidental oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). The activities proposed in this plan will be covered by Fieldwood's Regional Oil Spill Response Plan (refer to information submitted in accordance with **Appendix H**).

There are no other IPFs (including emissions, effluents, or wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to shipwreck sites.

11. Prehistoric Archaeological Sites

IPFs that could cause impacts to prehistoric archaeological sites as a result of the proposed operations in Green Canyon Block 200 are physical disturbances to the seafloor and accidents (oil spills).

Physical Disturbances to the seafloor: Green Canyon Block 200 is located inside the Archaeological Prehistoric high probability lines. Fieldwood will report to BOEM the discovery of any object of prehistoric archaeological significance and make every reasonable effort to preserve and protect that cultural resource.

Accidents: An accidental oil spill has the potential to cause some detrimental effects to prehistoric archaeological sites if the release were to occur subsea. However, it is unlikely that an accidental oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). The activities proposed in this plan will be covered by Fieldwood's Regional Oil Spill Response Plan (refer to information submitted in accordance with **Appendix H**).

There are no other IPFs (including emissions, effluents, wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to prehistoric archaeological sites.

Vicinity of Offshore Location

1. Essential Fish Habitat (EFH)

IPFs that could cause impacts to EFH as a result of the proposed operations in Green Canyon Block 200 include physical disturbances to the seafloor, effluents and accidents. EFH includes all estuarine and marine waters and substrates in the Gulf of Mexico.

Physical disturbances to the seafloor: The Live Bottom Low Relief Stipulation, the Live Bottom (Pinnacle Trend) Stipulation, and the Eastern Gulf Pinnacle Trend Stipulation would prevent most of the potential impacts on live-bottom communities and EFH from bottom disturbing activities (e.g., anchoring, structure emplacement and removal).

Effluents: The Live Bottom Low Relief Stipulation, the Live Bottom (Pinnacle Trend) Stipulation, and the Eastern Gulf Pinnacle Trend Stipulation would prevent most of the potential impacts on live-bottom communities and EFH from operational waste discharges. Levels of contaminants in drilling muds and cuttings and produced-water discharges, discharge-rate restrictions, and monitoring and toxicity testing are regulated by the EPA NPDES permit, thereby eliminating many significant biological or ecological effects. Operational discharges are not expected to cause significant adverse impacts to EFH.

Accidents: An accidental oil spill has the potential to cause some detrimental effects on EFH. Oil spills that contact coastal bays and estuaries, as well as OCS waters when pelagic eggs and larvae are present, have the greatest potential to affect fisheries. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). The activities proposed in this plan will be covered by Fieldwood's Regional OSRP (refer to information submitted in **Appendix H**).

There are no other IPFs (including emissions, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact essential fish habitat.

2. Marine and Pelagic Birds

IPFs that could impact marine birds as a result of the proposed activities include air emissions, accidental oil spills, and discarded trash and debris from vessels and the facilities.

Emissions: Emissions of pollutants into the atmosphere from these activities are far below concentrations which could harm coastal and marine birds.

Accidents: An oil spill would cause localized, low-level petroleum hydrocarbon contamination. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Marine and pelagic birds feeding at the spill location may experience chronic, nonfatal, physiological stress. It is expected that few, if any, coastal and marine birds would actually be affected to that extent. The activities proposed in this plan will be covered by Fieldwood's Regional OSRP (refer to information submitted in **Appendix H**).

Discarded trash and debris: Marine and pelagic birds could become entangled and snared in discarded trash and debris, or ingest small plastic debris, which can cause permanent injuries and death. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Fieldwood will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass. Informational placards will be posted on all vessels and facilities having sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "Think About It" (*previously "All Washed Up: The Beach Litter Problem"*). Thereafter, all personnel will view the marine trash and debris training video annually. Offshore personnel will also receive an explanation from Fieldwood management or the designated lease operator management that emphasizes their commitment to waste management in accordance with NTL No. 2015-G03-BSEE. Debris, if any, from these proposed activities will seldom interact with marine and pelagic birds; therefore, the effects will be negligible.

There are no other IPFs (including effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact marine and pelagic birds.

3. Public Health and Safety Due to Accidents.

There are no IPFs (emissions, effluents, physical disturbances to the seafloor, wastes sent to shore for treatment or disposal or accidents, including an accidental H2S releases) from the proposed activities which could cause impacts to public health and safety. In accordance with NTL No.'s 2008-G04, 2009-G27, and 2009-G31, sufficient information is included in **Appendix D** to justify our request that our proposed activities be classified by BSEE as H_2S absent.

Coastal and Onshore

1. Beaches

IPFs from the proposed activities that could cause impacts to beaches include accidents (oil spills) and discarded trash and debris.

Accidents: Oil spills contacting beaches would have impacts on the use of recreational beaches and associated resources. Due to the response capabilities that would be implemented, no significant adverse impacts are expected. The activities proposed in this plan will be covered by Fieldwood's Regional OSRP (refer to information submitted in **Appendix H**).

Discarded trash and debris: Trash on the beach is recognized as a major threat to the enjoyment and use of beaches. There will only be a limited amount of marine debris, if any, resulting from the proposed activities. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Fieldwood will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on all vessels and facilities having sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "Think About It" (*previously "All Washed Up: The Beach Litter Problem"*). Thereafter, all personnel will view the marine trash and debris training video annually. Offshore personnel will also receive an explanation from Fieldwood management or the designated lease operator management that emphasizes their commitment to waste management in accordance with NTL No. 2015-G03-BSEE.

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities which could impact beaches.

2. Wetlands

Salt marshes and seagrass beds fringe the coastal areas of the Gulf of Mexico. Due to the distance from shore (88 miles), accidents (oil spills) and discarded trash and debris represent IPFs which could impact these resources.

Accidents: Level of impact from an oil spill will depend on oil concentrations contacting vegetation, kind of oil spilled, types of vegetation affected, season of the year, pre-existing stress level of the vegetation, soil types, and numerous other factors. Light-oiling impacts will cause plant die-back with recovery within two growing seasons without artificial replanting. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water quality). If a spill were to occur, response capabilities as outlined in Fieldwood's Regional OSRP (refer to information submitted in **Appendix H**) would be implemented.

Discarded trash and debris: There will only be a limited amount of marine debris, if any, resulting from the proposed activities. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Fieldwood will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on all vessels and facilities having sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "Think About It" (*previously "All Washed Up: The Beach Litter Problem"*). Thereafter, all personnel will view the marine trash and debris training video annually. Offshore personnel will also receive an explanation from Fieldwood management or the designated lease operator management that emphasizes their commitment to waste management in accordance with NTL No. 2015-G03-BSEE.

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to wetlands.

3. Shore Birds and Coastal Nesting Birds

Accidents: Oil spills could cause impacts to shore birds and coastal nesting birds. The birds most vulnerable to direct effects of oiling include those species that spend most of their time swimming on and under the sea surface, and often aggregate in dense flocks (Piatt et al., 1990; Vauk et al., 1989). Coastal birds, including shorebirds, waders, marsh birds, and certain water fowl, may be the hardest hit indirectly through destruction of their feeding habitat and/or food source (Hansen, 198l; Vermeer and Vermeer, 1975). Direct oiling of coastal birds and certain seabirds is usually minor; many of these birds are merely stained as a result of their foraging behaviors. Birds can ingest oil when feeding on contaminated food items or drinking contaminated water.

Oil-spill cleanup operations will result in additional disturbance of coastal birds after a spill. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water quality). Due to the distance from shore being 88 miles, Fieldwood would immediately implement the response capabilities outlined in their Regional OSRP (refer to information submitted in **Appendix H**).

Discarded trash and debris: Shore birds and coastal nesting birds are highly susceptible to entanglement in floating, submerged, and beached marine debris: specifically plastics. Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V and the Marine Plastic Pollution Research and Control Act, and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Fieldwood will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on vessels and every facility that has sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "Think About It" (*previously "All Washed Up: The Beach Litter Problem"*). Thereafter, all personnel will view the marine trash and debris training video annually. Offshore personnel will also receive an explanation from Fieldwood management or the designated lease operator management that emphasizes their commitment to waste management in accordance with NTL No. 2015-G03-BSEE.

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to shore birds and coastal nesting birds.

4. Coastal Wildlife Refuges

Accidents: It is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water quality). Response capabilities would be implemented, no impacts are expected. The activities proposed in this plan will be covered by Fieldwood's Regional OSRP (refer to information submitted in **Appendix H**).

Discarded trash and debris: Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V, the Marine Plastic Pollution Research and Control Act and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Fieldwood will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on vessels and every facility that has sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "Think About It" (*previously "All Washed Up: The Beach Litter Problem"*). Thereafter, all personnel will view the marine trash and debris training video annually. Offshore personnel will also receive an explanation from Fieldwood management or the designated lease operator management that emphasizes their commitment to waste management in accordance with NTL No. 2015-G03-BSEE.

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to coastal wildlife refuges.

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to coastal wildlife refuges.

5. Wilderness Areas

Accidents: An accidental oil spill from the proposed activities could cause impacts to wilderness areas. However, it is unlikely that an oil spill would occur from the proposed activities (refer to **Item 5**, Water Quality). Due to the distance from the nearest designated Wilderness Area (152 miles) and the response capabilities that would be implemented, no significant adverse impacts are expected. The activities proposed in this plan will be covered by Fieldwood's Regional OSRP (refer to information submitted in **Appendix H).**

Discarded trash and debris: Operators are prohibited from deliberately discharging debris as mandated by MARPOL-Annex V, the Marine Plastic Pollution Research and Control Act and regulations imposed by various agencies including the United States Coast Guard (USCG) and the Environmental Protection Agency (EPA). Fieldwood will operate in accordance with the regulations and also avoid accidental loss of solid waste items by maintaining waste management plans, manifesting trash sent to shore, and using special precautions such as covering outside trash bins to prevent accidental loss of solid waste. Special caution will be exercised when handling and disposing of small items and packaging materials, particularly those made of non-biodegradable, environmentally persistent materials such as plastic or glass.

Informational placards will be posted on vessels and every facility that has sleeping or food preparation capabilities. All offshore personnel, including contractors and other support services-related personnel (e.g. helicopter pilots, vessel captains and boat crews) will be indoctrinated on waste procedures, and will view the video (or Microsoft PowerPoint presentation), "Think About It" (*previously "All Washed Up: The Beach Litter Problem"*). Thereafter, all personnel will view the marine trash and debris training video annually. Offshore personnel will also receive an explanation from Fieldwood management or the designated lease operator management that emphasizes their commitment to waste management in accordance with NTL No. 2015-G03-BSEE.

There are no other IPFs (emissions, effluents, physical disturbances to the seafloor, or wastes sent to shore for treatment or disposal) from the proposed activities that could cause impacts to wilderness areas.

6. Other Environmental Resources Identified

There are no other environmental resources identified for this impact assessment.

(C) IMPACTS ON PROPOSED ACTIVITIES

The site–specific environmental conditions have been taken into account for the proposed activities. No impacts are expected on the proposed activities from site-specific environmental conditions.

(D) ENVIRONMENTAL HAZARDS

During the hurricane season, June through November, the Gulf of Mexico is impacted by an average of ten tropical storms (39-73 mph winds), of which six become hurricanes (> 74 mph winds). Due to its location in the gulf, Green Canyon Block 200 may experience hurricane and tropical storm force winds, and related sea currents. These factors can adversely impact the integrity of the operations covered by this plan. A significant storm may present physical hazards to operators and vessels, damage exploration or production equipment, or result in the release of hazardous materials (including hydrocarbons). Additionally, the displacement of equipment may disrupt the local benthic habitat and pose a threat to local species.

The following preventative measures included in this plan may be implemented to mitigate these impacts:

1. Drilling & completion
    a. Secure well
    b. Secure rig / platform
    c. Evacuate personnel

Drilling activities will be conducted in accordance with NTL No.'s 2008-G09, 2009-G10, and 2010-N10.

2. Structure Installation
   Operator will not conduct structure installation operations during Tropical Storm or Hurricane threat.

3. Pipeline Installation
   Operator will not conduct pipeline installation operations during Tropical Storm or Hurricane threat.

(E) ALTERNATIVES

No alternatives to the proposed activities were considered to reduce environmental impacts.

(F) MITIGATION MEASURES

No mitigation measures other than those required by regulation will be employed to avoid, diminish, or eliminate potential impacts on environmental resources.

(G) CONSULTATION

No agencies or persons were consulted regarding potential impacts associated with the proposed activities. Therefore, a list of such entities has not been provided.

(H) PREPARER(S)

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(I) REFERENCES

Authors:

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Balazs, G.H. 1985. Impact of ocean debris on marine turtles: entanglement and ingestion. In: Shomura, R.S. and H.O. Yoshida, eds. Proceedings, Workshop on the Fate and Impact of Marine Debris, 26-29 November 1984, Honolulu, HI. U.S. Dept. of Commerce. NOAA Tech. Memo. NOAA-TM-NMFS-SWFC-54. Pp 387-429.

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Vermeer, K. and R. Vermeer, 1975 Oil threat to birds on the Canadian west coast. The Canadian Field-Naturalist. 89:278-298.

Although not cited, the following were utilized in preparing this EIA:

- Hazard Surveys
- BOEM EIS's:
  - GOM Deepwater Operations and Activities. Environmental Assessment. MMS 2000-001
  - GOM Central and Western Planning Areas Sales 166 and 168 Final Environmental Impact Statement. MMS 96-0058.

SECTION R
ADMINISTRATIVE INFORMATION

(a) Exempted Information Description

The proposed bottom-hole location of the planned well has been removed from the public information copy of the SDOCD as well as any discussions of the target objectives, geologic or geophysical data, and any interpreted geology.

(b) Bibliography

- Supplemental Exploration Plan Control No. S-7899 approved on 09/21/2018
- Revised Exploration Plan Control No. R-6772 approved on 11/19/2018
- "*AUV/3D Seismic Shallow Hazard and Archaeological Report*" by Oceaneering International, Inc [Project No. 189363 / BOEM assigned Survey No. 24200]
- Revised Exploration Plan Control No. R-6856 deemed submitted on 07/03/2019